Modern Satellite Operations


Integrated Satellite Control System (ISCS) Operations

Naval Satellite Operations Center (NAVSOC), one of the nation's first space-related military commands, has been operating spacecraft from its Headquarters located at Point Mugu, California for more than 36 years.


NAVSOC Headquarters, Point Mugu, CA

NAVSOC was originally established in April 1962 under the name Navy Astronautics Group (NAVASTROGRU) to operate TRANSIT, the Navy Navigation Satellite System (NNSS).

In addition to the Headquarters facility, remote Tracking, Telemetry and Commanding (TT&C) facilities support the mission from Laguna Peak near Point Mugu; Detachment ALFA at Prospect Harbor, Maine; Detachment CHARLIE at Finegayan, Guam, and Detachment DELTA at Colorado Springs, Colorado.

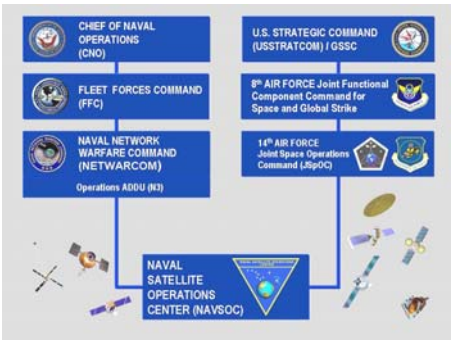
NAVSOC History

NAVSOC personnel pioneered space system operations when they developed, tested, and implemented the procedures to operate and manage the first operational American space system. The constellation of satellites broadcasted continuous navigation messages, providing accurate, all-weather satellite positioning capability to naval forces. Modern technology used in the Global Positioning System (GPS) closed the book on the world's first satellite navigation system and TRANSIT operations were terminated at the end of 1996.

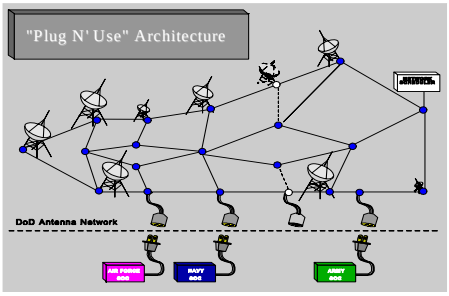
Organization

NAVSOC reports to Naval Network Warfare Command (NETWARCOM), which reports to United States Strategic Command (USSTRATCOM), and the Chief of Naval Operations via Fleet Forces Command (FFC).Operations.

NAVSOC has continued to modernize and upgrade its facilities



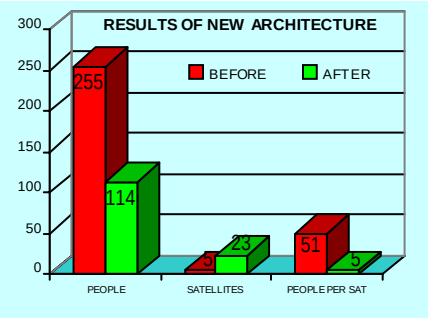
Navy allied with the Air Force Consolidated Space Operations Center (CSOC) in January 1996 for the sharing of antenna resources via the "Plug and Use" Concept.



Concept of Operations

NAVSOC has been a leader in implementing new operating concepts. The NAVSOC concept of operations calls for Satellite Managers on duty around the clock to perform operations on all satellites with Satellite Engineers on call for engineering support to individual operations. As a result of modernization and efficiency,

NAVSOC reduced manpower by 40 percent while increasing mission capability by 300 percent.

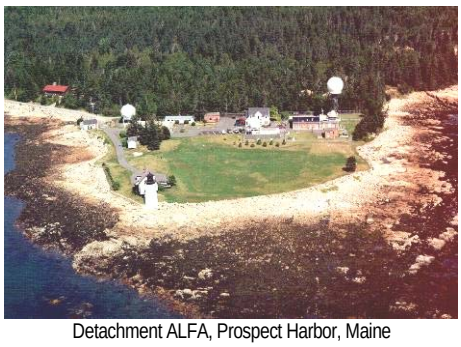


Remote Sites

The NAVSOC Laguna Peak Facility is located three miles from NAVSOC Headquarters and supports Ultra High Frequency (UHF) and Satellite Ground Link System (SGLS) satellite TT&C operations.

Laguna Peak Station, California

One of the original sites, NAVSOC Detachment ALFA is located at Prospect Harbor, Maine and supports satellite TT&C through SGLS, UHF, and Extremely High Frequency (EHF) capabilities.

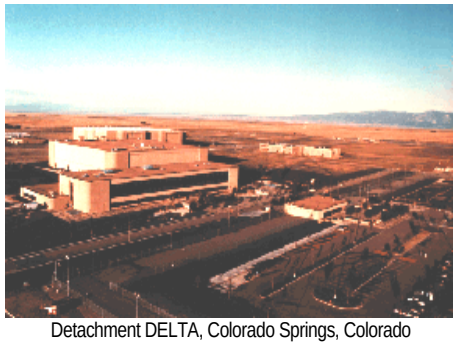


Detachment ALFA, Prospect Harbor, Maine

NAVSOC Detachment CHARLIE, located at Finegayan, Guam, was established in 1993 and serves as NAVSOC's third satellite earth station. Detachment CHARLIE has Doppler and telemetry collection capabilities as well as EHF tracking and commanding capabilities.

Detachment CHARLIE, Finegayan, GUAM

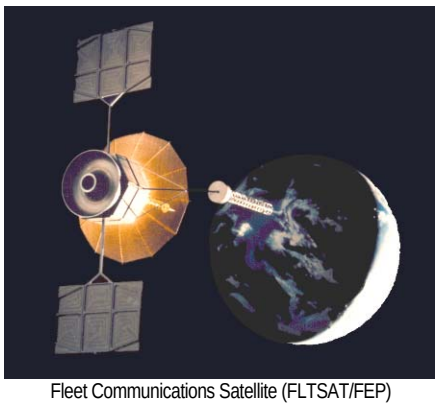
NAVSOC Detachment DELTA was established in 1988 and is located in Colorado Springs, Colorado within an Air Force facility at Schriever Air Force Base. The detachment's primary function is to serve as an alternate Satellite Operations Center (SOC) to the Point Mugu Headquarters and to coordinate scheduling with the Air Force. In the event of a disaster in the Point Mugu, California area, Detachment DELTA can perform and coordinate satellite operations until Point Mugu is restored.



Detachment DELTA, Colorado Springs, Colorado

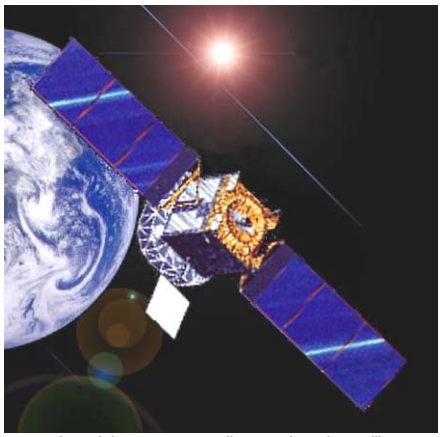
Mission

NAVSOC's current mission assignments include the operation of Fleet Satellite (FLTSAT), UHF Follow-On (UFO), FLTSAT EHF Package (FEP), GEOSAT Follow-On (GFO), and Polar-EHF satellite constellations.



Fleet Communications Satellite (FLTSAT/FEP)

GEOSAT Follow-On (GFO) Satellite



Ultra High Frequency Follow-On (UFO) Satellite

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